Chapter 1 Review Class Work Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Tell whether each statement is correct or incorrect. If it is incorrect, write the correct expression.

|  |  |  |
| --- | --- | --- |
| Expression | Correct**/**Incorrect | Correction (if necessary) |
| *-w 3=* (-*w*) ∙ (-*w*) ∙ (-*w*) |  |  |
| *(-c)2= (-c) ∙ (-c)* |  |  |

***Directions:*** *Simplify each expression into exponential notation using the product rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
| *y3∙ y -7* |  |
| *(8p4)(2p5)* |  |

***Directions:*** *Simplify each expression into exponential notation using the power rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
| (10-4)3 |  |
| (*(9u)-9*)-2 |  |

***Directions:*** *Simplify each expression into exponential notation using the quotient rule.*

|  |  |
| --- | --- |
| Expression | Exponential Notation |
|  |  |
|  |  |

**Directions:** Write the prime factorization of each number in exponential notation.

315

315 =

***Directions:*** *Simplify each expression and* ***evaluate****. [Remember the* ***order of operations****].*

1. 3 ∙ + 480 ∙ 3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Directions:*** *Simplify the expression; write your answer with positive exponents. [Remember your* ***order of operations****].*

1. *x -3* = \_\_\_\_\_\_\_ *x0 = \_\_\_\_\_\_\_\_*  = \_\_\_\_\_\_\_\_\_\_\_\_\_
2. = \_\_\_\_\_\_\_\_\_\_\_\_\_
3. = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Directions*:** Solve each equation and show all work! *Round answers to nearest tenth.*

1. *x2  = 100 h*) *x3 = -125*

*x = \_\_\_\_\_\_\_\_ x = \_\_\_\_\_\_\_\_\_\_\_\_*

***Directions:*** Read and solve each problem. Be sure to write each formula that goes with each problem and make sure you show steps necessary to solve the problem to get full credit!

**FORMULAS**: Recall that the formulas for…

*Area of a* ***square*** *= s2  Volume of a* ***cube*** *= s3 Volume of a* ***sphere*** *= πr3*

j) A ping pong ball has radius of 1.25 inches. What is the volume of the ping pong ball?

k) Donny wants to carpet his basement. He determined that the floor is a square with an area of 333.0625 square feet. What is the length of carpet that Donny needs to carpet his basement?